



BPS TELEPHONE COMPANY
P.O. BOX 550
BERNIE, MO 63822-0550

(573) 293-2BPS
(2277)
Fax (573) 293-2299

March 20, 2014

Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, D.C. 20554
Attn: Wireline Competition Bureau

Re: WC Docket No. 10-90
Rural Broadband Experiment Expression of Interest

Dear Ms. Dortch:

Background Information

FDF Communications Company is a holding company who owns and operates BPS Telephone Company, a Rate of Return (RoR) incumbent local exchange carrier (ILEC) serving the Bernie, Parma and Steele exchanges in Stoddard, New Madrid and Pemiscot counties in Southeast Missouri. In addition, FDF Communications Company dba BPS Networks (BPS Networks) offers wireline and wireless internet service throughout the Southeast Missouri counties of Dunklin, Stoddard, New Madrid, and Pemiscot

BPS Telephone has wireline broadband customers located in Bernie, Parma, Steele, Cooter, Denton, and Holland Missouri including the surrounding rural areas. BPS Telephone began operations in 1996 after a purchase of three GTE exchanges and is a privately held corporation.

Since BPS Telephone began operations in 1996, major improvements have been made in the quality and reliability of wireline service to customers. These improvements include the latest technology digital switching, fiber optic toll service, elimination of party lines, 100% touch tone, E-911, custom calling and class features, broadband internet access, standby power, and replacement of most outside plants.

Recognizing the lack of high speed internet access BPS Networks has made investments in wireless internet service and also the acquisition of wireless internet service providers to expand the availability of high speed internet in Southeast Missouri. The existing wireless internet service territory covers parts of Dunklin, New Madrid, Pemiscot and Stoddard Counties.



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Area Identification

One Broadband Experiment service area proposed by BPS Networks comprises 42 Census Tracts in Butler, Dunklin, Mississippi, New Madrid, Pemiscot, Scott, and Stoddard Counties in Missouri and 6 Census Tracts in Clay County Arkansas. The service territory covers approximately 4,769 square miles in rural Missouri and Arkansas which has some of the lowest income areas in the state with 3 of the 5 counties where BPS Telephone and BPS Networks operate wireline or wireless broadband services being in the 10% of the lowest income counties in the state of Missouri. This area of Missouri is also characterized by population decline of 5%-10% and a poverty rate on average which is greater than 20% and in some areas exceeds 30%.

Per data provided in the CAM Version 4.0 data the BPS Networks Broadband Experiment in Missouri and Arkansas could potentially impact 10,600 locations in 7,005 Census Blocks currently identified as Unserved by an unsubsidized competitor.

Missouri Census Tracts in Proposed Broadband Experiment Area

Butler	Dunklin	Mississippi	New Madrid	Pemiscot	Scott	Stoddard
9501	3604	9501	9501	4701	7801	4701
9502	3605	9503	9502	4704	7802	4702
9503	3606		9504	4705	7803	4703
9504	3607		9505	4706	7804	4704
9505	3608		9506		7806	4705
9506	3609				7810	4706
9507	3610				7811	4707
9508						4708
9509						

Arkansas Census Tracts in Proposed Broadband Experiment Area

Clay	9501	9502	9503	9504	9505	9506
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A few population centers contain the majority of the population in this Experiment area as it is primarily Mississippi river delta plain, with some smaller towns scattered in the rural farming area. Schools, smaller city governments, fire districts and other Community Anchor Institutions are scattered thru the serving area and will be identified with specificity when formal Broadband Experiment application criteria are published. Most core state and county government facilities are contained in the population centers already served with broadband.

In Southeast Missouri with higher poverty rates and population decline, the availability of high bandwidth facilities will allow consumers to take advantage of the full array of content and educational material available over stable broadband connections allowing for the possibility of an improvement in the quality of life.

An additional Broadband Experiment service area is located in western Virginia and comprises 28 Census tracts in the Augusta, Albemarle and Nelson counties. This additional Broadband Experiment service territory covers approximately 2,157 square miles in rural Virginia in areas which are largely unserved with basic broadband by an incumbent or competitive provider. The geography of this area along the Alleghany Mountains, Shenandoah Valley and the Blue Ridge Mountains is rugged and impacts population dispersion and associated broadband infrastructure investment.

This Broadband Experiment proposed by BPS Networks could potentially impact 6,081 locations in 3,364 Census Blocks currently identified as Unserved by an unsubsidized competitor.

Virginia Census Tracts in Proposed Broadband Experiment Area

Albemarle	Augusta	Nelson
0101	0701	9501
0102	0702	9502
0103	0703	9503
0104	0704	
0105	0705	
0106	0706	
0108	0707	
0109	0708	
0110	0709	
0111	0710	
0112	0711	
0113	0712	
0114		



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Like in southeast Missouri a few population centers contain the majority of the population in this Experiment area as it is primarily mountainous terrain, with some smaller towns scattered in the valley areas. Schools, smaller city governments, fire districts and other Community Anchor Institutions are scattered thru the serving area and will be identified with specificity when formal Broadband Experiment application criteria are published. Most core state and county government facilities are contained in the population centers already served with broadband.

Also like in southeast Missouri the availability of high bandwidth facilities in this Broadband Experiment area will allow consumers to take advantage of the full array of content and educational material available over stable broadband connections allowing for the possibility of an improvement in the quality of life.

Broadband Technology

BPS Telephone has made investments in fiber and short loop copper technology in the Bernie, Parma and Steele exchanges and has invested in more than 40 miles of middle mile fiber assets on a competitive basis in Dunklin, New Madrid, Pemiscot and Stoddard counties. BPS Networks has made investments in wireless technology to provide service in Dunklin, New Madrid, Pemiscot and Stoddard counties.

The technology solution which may very well best serve the Broadband Experiment in southeast Missouri is a mixture of fiber based broadband to population centers and Community Anchor Institutions and the deployment of wireless technology. The deployment of wireless broadband in the Experiment Area could be facilitated utilizing existing BPS Networks owned wireless tower and radio locations and the use of existing licensed AWS and PCS spectrum as well as lightly regulated spectrum such as 3.65Ghz wireless. The new and existing middle mile fiber assets as well as the fiber assets for connection of Community Anchors would also be utilized for the backhaul of wireless broadband traffic.

The wireless technology considered for deployment could be capable of providing broadband rates in excess of 25 Mb downstream and 12 Mb upstream. Considering the areas have low population densities, population decline and high poverty rates with low household income; providing broadband solutions which deliver high bandwidth rates for the provision of voice and data services while accomplishing the service with lower capital costs and revenue requirements could help accomplish better service take rates and accomplish the overall goal of advancing broadband without the requirement of ongoing support.



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Broadband Services

BPS Telephone is an existing provider of voice and broadband services and is an Eligible Telecommunications Carrier (ETC) in the regulated exchange areas of Bernie, Parma, and Steele. The wireless technology considered for deployment in the Broadband Experiment area is by specification capable of meeting latency requirements for the provision of voice services and is currently being field tested with VoIP service to measure the quality of service at various data rates and Signal to Noise (SNR) ratio's which would be encountered in a production deployment.

Data speed tiers and pricing are not currently fully detailed as a financial analysis is not required for the Expression of Interest, but could reasonably resemble and most likely exceed in value the current wireless internet offerings of BPS Networks. Video services are not anticipated to be a service offering over the wireless platform, the wireless technology would support the service requirements of High Definition (HD) content from services like Netflix, Hulu and Roku. The exploration of the use of these devices on BPS Networks fixed wireless customer base is ongoing at this time. In addition, VOIP service is being investigated.

Broadband Speed Tiers: (Potential Upstream/Downstream)

10Mb/5Mb
15Mb/10Mb
25Mb/12Mb
50Mb/25Mb
1 GigE Services over fiber facilities

Additional advanced services such as Health Monitoring and mobile wireless backhaul are potential additional services which are able to be provisioned and utilized on the fiber and wireless network.

State, Local or Tribal Governmental Participation

Opportunities for additional participation by State, Local or Tribal Governments are unknown at this time, but will be further researched and evaluated for inclusion in a formal application.

The opportunity exists to utilize Middle mile fiber assets in Nelson County Virginia which were placed by funds as a part of Broadband Stimulus project.



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Funding Requirements

The Broadband Experiment in southeast Missouri and northeast Arkansas is anticipated to require only one time funding, an attribute of utilizing a combination of fiber based and wireless technology.

The amount of capital estimated to complete a greenfield fiber network to Community Anchor Institutions utilizing licensed or unlicensed wireless broadband for residential services would require a minimum of \$62,756,000 in capital expenditures and the amount of Broadband Experiment funding requested is \$62,756,000.

In the Virginia Broadband Experiment location geography and terrain make the deployment of wireless broadband difficult, accordingly BPS Networks does not have wireless tower or wireless spectrum assets in Augusta, Albemarle and Nelson county Virginia. The three county areas have seen a population increase between the 2000 and 2010 Census data collections and FTTH is the best network architecture for broadband services in the area.

The amount of capital estimated to complete a full greenfield FTTH network in the area will likely exceed \$65,000,000 in one time Capital Expenditures, the amount of Broadband Experiment funds requested at this time for the Experiment area is \$65,000,000.

BPS Networks

Mark Graves
Vice President